

NEW DESCRIPTIONS

During systematic studies on the flora of Trivandrum Dt., Kerala for a period of over five years, several rare and interesting plants were collected. A new species of *Syzygium* Gaertn. (Myrtaceae) collected during the above period is described with illustrations.

Syzygium parameswaranii sp. nov. (Figs. 1-6)

Syzygium calophyllifolium Walp. affinis, sed floribus magnioribus pedicellatis (pedicellis usque ad 3 mm), lobis calycum magnioribus ovatis conspicus in gymno as imbricatis, foliis magnioribus (usque ad 4.5 cm) ad superas conspicue et arte nervatis differt.

Trees 4-6 m tall; ultimate branchlets tetragonal. Leaves 2.5-3 x 2-3.5 cm, opposite, sessile, coriaceous, ovate, obtuse or subacute at apex, rounded at base; midrib prominent; secondary lateral veins close, conspicuous; margins recurved. Panicles c. 2 x 2 cm, glabrous, subsessile, condensed, many flowered. Flowers c. 8 x 2.8 mm, funnel-shaped; pedicels 3 mm long, slender, glabrous. Calyx tubes c. 0.3 mm; lobes 4, each c. 1 x 1 mm, ovate, obtuse at apex. Petals 4, each c. 3 x 2.5 mm, suborbicular, obtuse at apex, gland-dotted along the main nerve. Stamens 3 mm long; filaments dilated at base. Ovary 2-loculed with

many ovules in each locule; style 3 mm long; stigma simple.

Holotype *M. Mohanan* 66051 (CAL) and isotypes *M. Mohanan* 66051 (MH acc. no. 136392-93), were collected from the western slopes of Agastyamalai in Trivandrum Dt., Kerala (Alt. ± 1600 m) on 5.3.1980.

The new species is allied to *S. calophyllifolium* Walp. but differs by the larger, pedicelled flowers; larger ovate, conspicuous calyx lobes imbricate in bud; and larger leaves with conspicuous veins close above .

This rare tree grows along grassy western slopes of Agastyamalai in close association with *Pittosporum* spp.

Flowering: Jan.-April.

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We are pleased to dedicate this species to Dr. M. Parameswaran Nayar, Director, Botanical Survey of India, Calcutta for his significant contributions to the systematics and phytogeography of Indian plants.

ON THE IDENTITY OF THREE NEW SPECIES OF *URGINEA* (LILIACEAE)¹

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Deb and Dasgupta (1974, 1981) studied the taxonomy of the genus *Urginea* Steinh. (Liliaceae) in India. Jessop (1977) in his studies

on the bulbous Liliaceae in South Africa reduced *Urginea* to a synonym of *Drimia*. Accordingly Ansari and Raghavan (1980) changed the names of Indian *Urginea* to *Drimia*, and Ansari (1981) described a new

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² Botanical Survey of India, Howrah.

species. Deb and Dasgupta (1983) reviewed the generic status of *Urginea* in course of which they upheld the distinction between *Urginea* and *Drimia*, for which new combinations proposed by Ansari and Raghavan (l.c.) stand superfluous and illegitimate, and the new species *Drimia rajii* Ansari (1981) deserves a new combination.

Detailed investigation on taxonomic significance of morphological characters and their range of variation in altitudinal and geographical distribution reveals that *U. coromandeliana* and *U. wightiana* are not distinguishable from *U. indica* by any qualitative character. Hooker f. (1892) distinguished *U. coromandeliana* from *U. indica* for persistent bracts, smaller bulbs and linear leaves, and (2) *U. wightiana* for long pedicels, broad filaments and narrow elongated style. Recent collections close up the distinction. Specimens are extant having bigger bulbs with linear leaves (Rammurthy 16028 MH); smaller bulbs with broader leaves (*D. Prain* s.n. CAL; *Rukmini Bai* 134 BLAT); bigger bulbs with persistent bracts (*J. Joseph* 12439 MH); and characters intermediate between two extremes (Barnes 2179 K). On the other hand, there are specimens with long pedicel, narrow filament, and short style (*S. Kurz* s.n. CAL); long pedicel, broad filaments, and short style (*Santapau* 13702 BLAT), and short pedicel, narrow filament and long style (*Fischer* 3783 MH). These evidently indicate that such variations are of no taxonomic significance for which these three are treated as conspecific (Deb and Dasgupta, l.c.). Workers who are not familiar with taxonomic significance of morphological characters in a group may hesitate to accept conspecificity on examination of some isolated plants. But this is unavoidable for the sake of taxonomy.

Urginea indica is distributed nearly through-

out India from Gujarat and Maharashtra extending to tropical Africa in the west, to Bihar, Orissa and Burma in the east, Himalayan border of Uttar Pradesh and Nepal in the north and down to Tamil Nadu in the south. It grows from the sea level to 2600 m in altitude, in dry habitats, such as sandy gravel, sandstones and soils derived from garnetiferous gneiss and khondalite. It is found in the Pine forest in the Western Himalayas and *Dipterocarpus* forest in Burma.

The species is known as hysteranthus. But *Shaik Ismail* 222 (CAL) collected from Akyab, Burma, on 21.1.1907 bears simultaneously leaves, flowers and fruits, showing thereby, that this is not strictly hysteranthus and that this phenomenon is influenced by the ecological condition prevailing on the locality in which it grows.

Chromosome numbers of *U. indica* were determined as $2n = 20$ by Raghavan (1935, 1940) and Kishore (1957). Triploidy also was observed in it by Raghavan (l.c.). Jha and Sen (1985) observed diploid, triploid, tetraploid and hexaploid races of 20 cytotypes in different populations of *U. indica* distributed in south Indian states. They further observed a high degree of genotypic variability in natural populations. Their observation is in conformity with the taxonomic significance of morphological variations in the genus as expounded by Deb and Dasgupta (l.c.).

U. govindappae Boraiah et Fatima (1970) has been reduced to a synonym of *U. indica* by Deb and Dasgupta (l.c.). Boraiah and Fatima (1982) could not accept the reduction of their species, for some variation in forms of bulb and leaf as well as chromosome configuration in their material and that the type specimen was not examined at that time.

Deb and Dasgupta (1974) considered all

these points before reducing the species to a synonym. They examined a specimen from the type locality as determined by the authors of the species since the holotype was not sent to CAL by that time. In the mean time they examined the type presented to CAL and find that their views are correct. Forms of the bulb and leaf are covered by the range of variation of these parts in *U. indica*. Cytological studies conducted by Jha and Sen (1985) are in full agreement with the reduction of that species so far as chromosomal differences are concerned. Any difference in chromosomal configuration if not followed by any qualitative change in morphological characters cannot be the basis for taxonomic distinction of a species. Thus *U. govindappae* stands reduced to a synonym of *U. indica*.

U. nagarjunaee Hemadri et Swahari (1982) has been described on the basis of bulbs collected from Bhata village, Nellore district, Andhra Pradesh and grown in the experimental garden, Vijayawada. The authors distinguished the species by the stouter scape, closer flowers, non reflexed perianth segments, larger bulbs, broad leaves and bigger gynoecium. They included in this species Fischer 3783 (MH) which was treated by Deb and Dasgupta as *U. indica* with a note that it shows gigantism.

Reflexed perianth segment is not of taxonomic significance. In both the species perianth segments are erect when young and spreading when matured. Hemadri & Swahari noted closer flowers in having 20-75 flowers in 15-28 cm long raceme. In Fischer 3783 (MH) there are 18 flowers in 25 cm long raceme as is the case with *U. indica*. As regards quantitative characters bulb size in *U. indica* varies from 2.5 to 10 cm in length which includes the range given for *U. nagarjunaee*. In size of scape, breadth of leaves, length of gynoecium

etc., the upper limit in *U. nagarjunaee* is higher than that of *U. indica*, but there is continuity in variation and Fischer 3783 (MH) is intermediate in position. Another fact that needs to be considered here is that their plant was grown in nursery and it flowered under cultivated condition. It is well established that a cultivated plant shows variations from the typical one in natural habitat.

In consideration of all these facts it is evident that *U. nagarjunaee* is not taxonomically distinct from *U. indica* and deserves to be reduced to a synonym as follows:

***U. indica* (Roxb.) Kunth, Enum. Pl. 4: 333. 1843; Deb et Dasgupta in Bull. Bot. Surv. India 16: 118. 1974 & Fascicles Fl. India 7:17. 1981.**

Scilla indica Roxb. Fl. Ind. 2: 148. 1832 (Type: *W. Roxburgh* s.n.)

S. coromandeliana Roxb. (Type: *W. Roxburgh* s.n.)

Urginea senegalensis Kunth, Enum. Pl. 4: 334. 1843.

U. coromandeliana Hook. f. Fl. Brit. Ind. 6: 347. 1892.

U. wightiana Hook. f. Fl. Brit. Ind. 6: 347. 1892 (Type: *Wight* s.n.)

U. govindappae Boraiah et Fatima in Bull. Bot. Surv. India 12: 128. 1970 (Type: *Boraiah et Fatima* 601! CAL).

Drimia indica (Roxb.) Jessop in Journ. S. Afr. Bot. 43: 312. 1977.

***U. nagarjunaee* Hemadri et Swahari in Ancient Sci. Life 2: 105. 1982. (Type: *Hemadri* 3001 A! holo CAL; *Hemadri* 2925 A! para CAL), synon. nov.**

Drimia raiji Ansari (1981) is stated to have the holotype and one of the isotypes deposited with CAL, but these are not yet sent here for which no specimen could be examined. However, it is quite evident from the description and the illustrations that this is a distinct one

and deserves a new combination as follows:
Urginea rajii (Ansari) Deb et Dasgupta comb.
 nov.

Drimia rajii Ansari in Journ. Bombay nat. Hist. Soc. 78: 572. 1981.

As a new species has been added to the genus a revised key to the species is given:

KEY TO THE SPECIES

1a. Pedicels shorter than bracts; flowers few *U. polypyphylla*

- 1b. Pedicels longer than bracts; flowers many
- 2a. Pedicels 10-35 mm; racemes loose *U. indica*
- 2a. Pedicels 4-8 mm; racemes dense
- 3a. Bracts persistent, not squered *U. polyantha*
- 3b. Bracts evanescent, spurred
- 4a. Capsule ovate-oblong; perianth 8-9 mm long *U. rajii*
- 4b. Capsule subglobose; perianth ± 5 mm long *U. congesta*

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A NEW SPECIES OF *LASIANTHUS* (RUBIACEAE) FROM BURMA¹

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(With a text-figure)

***Lasianthus meeboldii* sp. nov.**

Species haec ab *L. curtisii* King et Gamble differt folio latiore, stipula breviore, inflores-

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² Botanical Survey of India, Indian Botanic Garden, Howrah.

centia sessili, calyce dentibus minutibus, fructibusque pubescentibus.

Typus: Burma, Tenasserim, Yaundan, March, 1911, A. Meebold 14790 holo. CAL; Mergui, Sandawut reserve, 50', 31.1.1919, C. G. Rogers 440 m para. CAL.